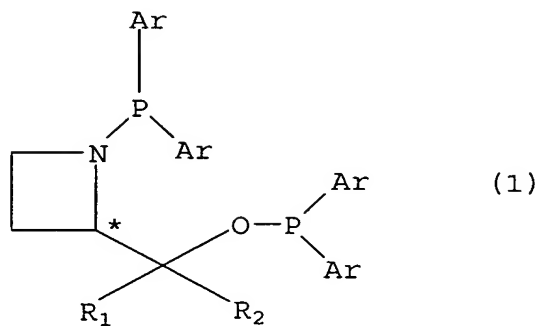


ABSTRACT

There is disclosed a chiral phosphine compound of formula
(1):



The chiral phosphine compound is suitably used to produce a transition metal complex that is useful as an asymmetric reaction catalyst.